Vegetable Excrescencies, and Ichneumon Wasps: together with an Inquiry concerning Tarantula's, and a Discovery of another Musk-sented Insect: transmitted to the Publisher from York in two Letters, of Octob. 16. and 28. 1671.

## The Extrast of one of these Letters:

Hat this Letter may not be without all matter of Philosophy, you may take an occasion to put this Quere

to your correspondents of Italy, viz.

Whether the Tarantula be not a Phalangium (that is, a fixeyed skipping Spider) as Matthiolus and others feem to tell us? if so, whether some later Authors impose not on us by giving us a Cutt or Figure of a Net or Reticulum orbiculatum, which our English Phalangia are never (that I know of) observed to weave or make use of in hunting? and whether the person bit by a Tarantula, be not ever, when on his feet, disposed to and actually dancing after the nature of a Phalangium, which never moves but by skippings; even as it happens with such that are bitten by a Mad Dog, who have been sometimes observed to bark like a dog, &c. And if so, what we are to think and credit concerning such and such Musical tunes, said to be most agreeable and tending to the Cure of persons bit by a Tarantula?

But next among other things, I had the good fortune to prefent Mr. Willoughby giving me the honour of two visits, with a

\* See of two or three more Musk-lafects Kum 75. p 2220. and Numb. 76. p.2281. Musk-Ant \* an Infect observed by me not many days before his first visit: And though I cannot send you the Infects themselves, as having parted with all I had, yet I will the Note, viz.

Septemb. 2. I found in a Saudy Ditch-bank, the first hollow beyond the Ring-houses in the high-road to London about a mile and an half from York, a fort of exceeding small Pismires (by which note alone I think they may be sufficiently distinguish't from all at least that I have seen.)

Those

Those without wings were of a light-yellow or flaxen, and being broken at on's nostrils they emitted, like others, an acid or fowre fent; but those of the same bank with wings, were cole-black, aud these, bruised and smelt to, emitted so fragrant a fmell like musk, that I must confess they were too strong for me to endure: yet having kept them some time by me, the more delicate sex were not displeased with the smell. an Apothecary in this City, famous for his diligence in Chymical Operations, did compare them (unseen and not yet made known to him) to an excellent balfom, he is wont to prepare.

Mr. Willoughby inform'd me, that he had found the Goat-

chafer or Sweet beetle \* out of season as to that smell; and thereupon asked me, what I had obferved as to the time of their sweetest and strong- 2220. and N. est smelling? I answer'd, that I believed it to be at the time of the Coit, for asmuch as at that time,

\* Of which fee Numb. 74. p. 76. p.2281.

when I took them highly perfumed, I had observed the semale full of Egg.

## The Extrast of the other Letter:

Send you a second paper about Vegetable Excrescencies; the shortness of the former \* and some \* of which see things therein, perhaps liable to Exception, Numb. 75. p. obliging me thereto.

Concerning the fifth and last proposition of the first paper. it might be more intelligibly expressed thus, viz. That the substance or fibrous part of many Vegetable Excrescencies seems not to be the food of the worms found in them: My meaning is, that the worms in those Vegetable Excrescencies, which produce Ichneumons (to which kind of Infect we would limit this proposition, and therefore expunge all other instances,) these worms, I say, do not seem to devour the substance or fibrous part of them, as other worms cat the Kernels of nuts, &c. but that (what-ever their manner of feed. ing is, and we doubt not but that they are nourish't in and upon some part of them,) the Vegetable Excrescencies still mightily increase in bulk, and rise as the worms feed.

It is observable (to endeavour a Solution) that some of the Ichneumons delight to feed of a liquid matter, as the Eggs of Spiders, the juices (if not Eggs) within the bodies of Caterpillars and Maggots: Whence we conjecture, that those of the same Genus, to be found in Vegetable Excrescencies, may in like manner suck-in the juices of the equivalent parts of Vegetables. And this the dry and spongy texture of some of those kind of Excrescencies seems to evince: For, if you cut in pieces a Wild-poppy-head, for example, (or the great and fort balls of the Oak) you'l find in those partitions, wherein these worms are lodged, nothing but a pithy substance like that of young Elder; and if there chance to be any cells yet unseised, (which I have sometimes observed) the seeds therein will be found yet entire and ripe. Whence very probably they feed upon or fuck-in by little and little the yet liquid pulp of the tender feeds, and leave the substance or fibrous part to be expanded into an Excrescence.

As formatter of Fact, to clear the truth of that opinion, that the divers races of Ichneumons are generated by their respective Animal-parents, and particularly that those, which the divers Excrescencies of Vegetables produce, are not plantigenous, I am in great hopes, the instance of Poppy-heads. swoln into Excrescencies, will favour us the next season. My expectation is chiefly grounded upon the condition and nature of that plant; which is such, that nothing can pierce the skin of it and wound it but it must necessarily leave a mark of its entry, the milky juice springing upon the lightest pun-Eture, and drying and concreting suddainly into a red scar: And this, I think, I may affirm, that of the many heads grown into Excrescencies, which I gathered this Summer, all had more or less of those marks upon them. But our aim is here only to make way for the Observation against the next feafon; to which purpose also we propose the following Quære's ;

1. Whether the shagged balls of the Wild Rose are not Excrescencies grown from the bud and very fruit of the plant; like as the Wild-Poppy-heads are apparently not for worms but seed.

2. Whether the large and fost balls of the Oak are not in like manner the bud and acorn with all the parts of a sprouding branch, thus monstrously perverted from the first design of nature?

3. Upon what parts or juices the Ichneumon: worms, supposed to be thrust into Caterpillars and other Maggots, can be thought to feed: And whether there be not actually Eggs in Caterpillars and Maggots (as these are to be observed in their respective Chry(alis's) sufficient to serve them for food?

Concerning the name ixidium, although I could willingly refer you to Mr. Ray, who is another Hespehius; yet for present satisfaction I shall transcribe what the Excellent Critique G. Vossius saith (c. 16. de Inimicitia;) Ichneumon (i.e. Mus Pharaonis sive Ægyptiacus) Crocodili & Aspidis eva indagat, unde illi Ichneumonis nomen, quasi dicas Indagatorem (and si ixidiar:) Reperta utriusque ova conterit; ut est apud Oppianum in 30 de Venatione: Nicander tamen ait, eum Aspidis ova humi mandare.

Now a like Observation of certain Insects of the Wasp-kind, made no doubt by some of the Antients, occasioned the application of that name to Wasps as well as to that Ægyptian Mouse. Yet cannot I remember to have met with in any of the Antients of more than one text concerning those Wasps; viz. Aristot.de Hist. Anim. 1.5. c. 20. which Pliny (vid. lib. 11. c. 21.) hath rendred, in a manner verbatim, thus: Vespe, que Ichneumones vocantur (sunt autem minores qu'am alie) unum genus ex araneis perimunt, phalangium appellatum, & in nidos suos ferunt; deinde illinunt, & exiis, incubando, suum genus procreant.

How far this relation is true, and agreeable to modern Observations, we shall have perhaps occasion to discourse of else-where; Our design here is only to tell you, that we have enough to make us believe, that those very Insects, we have been treating of, are, for kind, the Ichneumons of the

Antients.